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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,650	01/13/2005	Rinaldo Husler	II/2-22717/A/PCT	9350
324	7590	10/21/2008		
JoAnn Villamizar Ciba Corporation/Patent Department 540 White Plains Road P.O. Box 2005 Tarrytown, NY 10591			EXAMINER TREIDL, JESSICA I	
			ART UNIT 1796	PAPER NUMBER
			MAIL DATE 10/21/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/521,650	<b>Applicant(s)</b> HUSLER ET AL.	
	<b>Examiner</b> JESSICA TREIDL	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,4,5 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4,5 and 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/03/2008</u>  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The European foreign patent document of the information disclosure statement filed 07/03/2008 fail to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because a copy was not provided. The reference has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing element(s) will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the statement, including all certification requirements for statements under 37 CFR 1.97(e). See MPEP § 609.05(a).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2, 4 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Felder et al (US 4,308,400) in view of Gaske (US 3,844,916).

Regarding claims 2 and 4, Felder et al teach a radiation curable composition (C11/L30-C12/L68) comprising at least one ethylenically unsaturated compound (C11/L33, ethylene diacrylate C11/L39), a photosensitizer (C11/L32), fillers (C12/L58-61) and further photoinitiators (C12/L62-68). Felder et al teach the sensitizer being an aromatic-aliphatic ketone of formula I wherein Ar can be -phenyl-T-phenyl-, T can be – O-, n=2, R<sup>1</sup> & R<sup>2</sup> can be methyl, X can be –OR<sup>6</sup>, and R<sup>6</sup> can be methyl (reference formula I, C2/L1-C3/L43). The reference additionally teaches 4,4-bis(α-piperidino-isobutryl)diphenyl oxide (C8/L1-10), an embodiment of reference formula I as well. The compound exemplifies the structural relationship between the phenyl-T-phenyl group and the isobutryl groups claimed in instant formula I and is identical to the compound taught above with the piperidino group replaced with a methyl group (R<sup>6</sup>).

While the reference teaches the composition comprising an ethylenically unsaturated compound, even an acrylate, (C11/L33, ethylene diacrylate C11/L39), it does not specifically teach an aminoacrylate as the ethylenically unsaturated

Art Unit: 1796

compound. Gaske discloses a radiation curable coating composition (C1/L4-5) containing a photoinitiator (C1/L32-33, see photosensitizer) and an ethylenically unsaturated compound being an aminoacrylate (C1/L17-42). Furthermore the reference discloses the composition to cure rapidly with minimum ultraviolet light and producing minimum fumes and vapors (C1/L8-11). The reference additionally discloses that the radiation polymerization is extended and speeded by the presence of the tertiary amine of the aminoacrylate compound (C1/L34-42). Gaske and Felder et al teach analogous inventions related to radiation curable coatings comprising a photoinitiator and an ethylenically unsaturated compound. It would have been obvious to one of ordinary skill in the art at the time of the invention to use an aminoacrylate as the ethylenically unsaturated compound of the composition of Felder et al to increase the extent and speed of the polymerization of the composition when exposed to UV light.

Regarding claims 9 and 11, Felder et al teach applying the composition to a surface and curing the composition with UV light (see Example 4).

Regarding claim 10, Felder et al teach the composition as a pigmented or unpigmented surface coating (C13/L19-27; varnish coating of metal sheeting, colorless varnish coating of paper).

Claims 5 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Felder et al (US 4,308,400) in view of Gaske (US 3,844,916).

Regarding claim 5, Felder et al teach a composition comprising the photosensitizer of claimed formula III (C8/L8-9, see 4,4'-bis-( $\alpha$ -hydroxy-isobutryl)-

Art Unit: 1796

diphenyl ethane), an ethylenically unsaturated compound (C11/L33, ethylene diacrylate C11/L39), fillers (C12/L58-61) and further photoinitiators (C12/L62-68). While the reference teaches the composition comprising an ethylenically unsaturated compound, even an acrylate, (C11/L33, ethylene diacrylate C11/L39), it does not specifically teach an aminoacrylate as the ethylenically unsaturated compound.

Gaske discloses a radiation curable coating composition (C1/L4-5) containing a photoinitiator (C1/L32-33, see photosensitizer) and an ethylenically unsaturated compound being an aminoacrylate (C1/L17-42). Furthermore the reference discloses the composition to cure rapidly with minimum ultraviolet light and producing minimum fumes and vapors (C1/L8-11). The reference additionally discloses that the radiation polymerization is extended and speeded by the presence of the tertiary amine of the aminoacrylate compound (C1/L34-42). Gaske and Felder et al teach analogous inventions related to radiation curable coatings comprising a photoinitiator and an ethylenically unsaturated compound. It would have been obvious to one of ordinary skill in the art at the time of the invention to use an aminoacrylate as the ethylenically unsaturated compound of the composition of Felder et al to increase the extent and speed of the polymerization of the composition when exposed to UV light.

Regarding claims 12 and 14, modified Felder et al teach all the claim limitations as set forth above. Additionally, Felder et al teach applying the composition to a surface and curing the composition with UV light (see Example 4).

Regarding claim 13, modified Felder et al teach all the claim limitations as set forth above. Additionally, Felder et al teach the composition as a pigmented or

Art Unit: 1796

unpigmented surface coating (C13/L19-27; varnish coating of metal sheeting, colorless varnish coating of paper).

### ***Response to Arguments***

Applicant's arguments filed 07/03/2008 have been fully considered but they are not persuasive.

The data from tables 1 and 2 of the specification do not clearly show a "synergistic" effect (unexpected results) between aminoacrylate and the instant photoinitiators. The difference between the curing rates of compositions containing an instant photoinitiator and a control photoinitiator in addition to aminoacrylate, is generally larger than the difference between the curing rates of compositions containing an instant photoinitiator and a control photoinitiator without the presence of aminoacrylate, 10-60 m/min and 20-90 m/min respectively. However, it is not clear if this difference is significant. A standard deviation would help determine if the difference is significant. Additionally it is not clear if the compositions were cured multiple times to produce a reliable result and potentially a standard deviation.

Furthermore it is noted that the difference between the cure rate of Example 3 and the control composition containing Darocur 1173 is the same with or without aminoacrylate, suggesting that the photoinitiator structure of Example 3 may not have the asserted synergistic unexpected effect. For these reasons the data presented in Tables 1 and 2 does not establish unexpected results of the compositions of claims 4 and 5.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA TREIDL whose telephone number is (571)270-3993. The examiner can normally be reached on Monday- Thursday, 7:30AM- 5PM EST, Alt. Friday.

Art Unit: 1796

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571) 272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo, Ph.D./  
Supervisory Patent Examiner, Art Unit 1796

/J.T./  
/9.30.08/